

GHG Emissions Line of Inquiry / Documentation of SEPA Compliance

Proposal: Ravensdale Phase 2 Master Plan – 2 Sports fields with 200 parking spaces

Basis for analysis: King County Permitting Preapplication Conference (January, 2013) site plan prepared by SLA Landscape Architecture, LLC, plus SEPA Checklist dated Dec. 2012. This is a support document to the SEPA Checklist, to be reviewed by Kevin Brown, King County Parks, SEPA Responsible Official.

Parking Proposed: 186 spaces Parking Count Used in This Analysis: 200 spaces

State regulations set the threshold limits of GHG generated by a proposal at 10,000 tons / year.

The 10,000 tons / year threshold represents approximately 2,300 passenger vehicles traveling a year.

Recreation sites like the proposal are typically 50% dedicated trips and 50% pass-by trips already analyzed by other land use trips (commercial, employment, etc.). Active recreation facility located closer to existing residential units actually reduces existing annual trips by Maple Valley / Ravensdale area residents, compared to the current scenario of a need to drive to existing sport facilities located in nearby communities (I-90 Preston, Enumclaw Boise Six-Plex, Kent, Auburn and Renton facilities).

The number of parking spaces proposed are 200 spaces. Assuming full use of every parking space at the site every day (Phase 2 proposal only – 2 fields), with one turnover for weekdays and two turnovers for Sat and Sunday with no use on holidays, the maximum annual daily trips are estimated as follows:

$200 \text{ spaces} \times 1 \text{ turn over} \times 250 \text{ days} = 50,000 \text{ ADT}$

$200 \text{ spaces} \times 2 \times 104 \text{ days} = 41,600 \text{ ADT}$

91,600 Trips (50% pass-by, 50% dedicated destination trip)

Average trip length = 5 miles (primary facility service radius, round trip)

Average miles per gallon = 20 MPG

$45,800 \text{ trips} \times 5 \text{ miles} = 229,000 \text{ miles traveled} / 20 \text{ MPG} = 11,450 \text{ gallons}$

Average tons of GHG per gallon of gas = 0.070469 EF MT CO₂e/Mmbtu

$11,450 \text{ gallons of gasoline} \times 0.070469 = 806.87 \text{ EF MT CO}_2\text{e/Mmbtu}$

CONCLUSION:

The proposal is below the 10,000 unit threshold and exempt from requirement of GHG mitigation, for purpose of SEPA review.

Prepared By: M. Mathes February 12, 2013